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Fifteen of the most innovative schools and 15 of the least innovative schools in Oregon, Washington, Idaho, Nevada, and Utah, as identified by the Educational Innovation Checklist developed by Hinman, were examined to (1) determine whether there are significant differences between their organizational climates, (2) determine if differences exist between the teachers' and administrators' perception of school climate for the two kinds of schools, and (3) determine if there are differences between each of four variables (expenditure, staff age, years in the school, and staff size) for the two groups. Results of the study show that (1) highly innovative schools have open climates while less innovative schools have closed climates, (2) both teachers and administrators see a closed climate in noninnovative schools while in innovative schools both see an open climate, and (3) highly innovative schools spend more per child, have a younger staff, have staff that remain a fewer number of years, and are larger schools. It is concluded that organizational climate of schools in terms of openness and closedness is an important condition for change. (HW)

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ORGANIZATIONAL CLIMATE AND THE ADOPTION OF  
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## ORGANIZATIONAL CLIMATE AND THE ADOPTION OF EDUCATIONAL INNOVATIONS

Governments such as the United States tend to maximize opportunities for man to progress. Technically and socially there is maximum opportunity to invent "things" that are bigger, better and faster; but in the process something happens to man the individual, and man as he relates to others. It is this consequence that is difficult to handle. The solution of social problems yet undetermined must be discovered by creative, concerned people, yet uneducated by a system which is yet undesigned.

Educators know this--they work hard at its solution; they develop hardware and software; they invent new ways to organize staff and students. They design flexible, comfortable buildings, they philosophize about the who and what and they develop new curricula and teaching-learning strategies--and still the job does not get done. Educators build change systems, change strategies, change models; they study the organization, the communications and the personalities and finally they synergize the whole concoction in an attempt to change--but in the long run, the many persist.

We cannot, however, stop the search or freeze into one system as the final system, nor can we leave change to chance and live with the scars of unplanned upheavals. Somewhere, somehow, there are systems and sub-systems which plan for and allow for change when and if necessary; systems in which change is the "comfortable" mode; systems which have the climate where all elements are accounted for and where the unpredictability of consequences are minimized. It is with this hope and this assumption that we seek data about the kinds of people who can implement change and systems where change can be a way of life.

We seek these data because, obviously, introduction of innovations in education is notoriously slow. As early as the Paul Mort studies of the 1930's, it was found that only three percent of the nation's schools had adopted educational innovations after fifteen years. Complete diffusion of an innovation in schools

was taking fifty years. Rogers (1966) in more recent reports, indicated similar trends. Complete adoptions may still take a dangerously long time.

Many writers have speculated as to why this lag exists in educational adoption. Carlson (1965) suggested three basic reasons for the slow rate of change. He cites the absence of a change agent, a weak knowledge base, and what he calls "domestication" of the public schools. Glines (1967) adds to Carlson's list when he points out that the failure of administrators or teachers to accept the inevitability of change and to comprehend the accelerating rate of change are basic causes for the slow rate of change. He also cites another crucial barrier which so many writers in the field have ignored; the emotional upheaval which is involved in any significant change. Others suggest the human striving for homeostasis, the barriers created by psychological and sociological imprinting, the conditioning of people toward obedience to authority rather than involvement and the breakdown in the feedback processes of communications.

Bhola (1966) and Bennis (1962) both found that the organizational and involvement approaches used by administrators made considerable difference in the adoption of innovation. Bhola said that the rapidity of change imposed by authoritarian methods impeded change and Bennis said that resistance was least in groups where involvement occurred in both the nature of change and the effecting of change.

All of these suggestions relate logically to the nature of human beings as leaders and followers as well as their interrelationships. This, then, led our research efforts toward some study of the personality traits of innovative superintendents. We (Johnson, 1967) found that highly innovative superintendents were more outgoing, more assertive, more venturesome, more imaginative, more experimenting, and more relaxed than less innovative superintendents.

We coupled these findings with Halpir and Croft's (1963) work in the climate of schools. They suggested that organizational climate can be construed as the

organizational personality of a school. They further found, by using the Organizational Climate Description Questionnaire that open climate schools were energetic, lively organizations moving toward their goals.

On the assumption that innovative schools would have to be "energetic, lively organizations moving toward their goals," we wanted to know more about the climate of the innovative school as contrasted with the non-innovative school. Through this knowledge we hoped to touch on the problem of more clearly defining what factors influence and cause change to occur in a school organization.

### Purposes of the Study

The purposes of this study were threefold. The first was to determine whether there were significant differences between the organizational climates for the most innovative and the least innovative schools participating in the study.

The second purpose was to determine if differences existed between the teachers' and administrators' perception of school climate for the most innovative and least innovative schools.

The third purpose was to determine if there were differences between each of four variables (expenditure, age of staff, years in the school, and number of professional staff) for the most innovative and least innovative schools. We chose these variables because there continues to be conflicting research regarding their effect. For example, Mort (1946) and Ross (1958) found expenditure to be a powerful factor influencing change. Carlson (1956) and Richland (1965) and Rogers (1962) did not agree with the findings of Mort and Ross. Rogers (1965) said that innovators are generally young, however, Carnie (1966) and Lawrence (1967) found no association between age and the degree of innovativeness. Nichols (1966) and his colleagues, as reported by Halpin (1966) compared two schools from a similar low socio-economic level: one school had an open climate, the other a closed climate. The open climate school was half the size of the closed climate school. They concluded that in the smaller open climate school the



principal was able to initiate more varied activities and innovations than was possible in the larger closed climate schools.

### The Research

Fifteen of the most innovative schools and fifteen of the least innovative schools were selected from eighty-six schools so categorized by State Departments of Education of Oregon, Washington, Idaho, Nevada and Utah. The most innovative and least innovative were identified by use of the Educational Innovation Checklist. This checklist was developed by Hinman (1966) following the pattern of Brickell (1962) in surveying innovative practices in schools of New York State. The inventory of innovations was categorized according to six structural elements of schools, namely: scheduling (time), staff utilization (teachers), procedures (methods), organization (students), curriculum (subjects), and facilities (places). The scoring was based on the degree of involvement of students in numbers and time.

The degree of openness and closedness was determined by administering the Organizational Climate Description Questionnaire developed by Halpin and Croft (1963) at the University of Chicago.

An analysis of variance and F ratio were used to determine if significant differences existed between the means on four variables (expenditures, age of staff, years in school and number of professional staff) and two climate categories for the most innovative and least innovative schools. The same analysis was used to test for differences in teachers' and administrators' perception of climate in the two innovative categories.

For this study, then, we tested the following hypotheses:

1. There is no significant difference between the level of organizational climate as measured by the O.C.D.Q. for the most innovative and least innovative schools.

2. There is no significant difference between teacher perception and administrator perception of the school climates in both the most innovative schools and the least innovative schools.

3. There is no significant difference in the expenditures per student, age of the professional staff, years of service of the professional staff and the number of professional staff between the most innovative and least innovative schools.

## Results and Conclusions

### Hypothesis Number 1 - Climate and Innovation

The data indicated an O.C.D.Q. mean score of 58 for the most innovative category and 37.87 for the least innovative category. These data resulted in an F ratio of 32.483 ( $R:F=4.20$ ). The null hypothesis was therefore rejected and it may be concluded that there is a significant difference between the climate of the two levels of innovativeness. Thus, the data indicated that highly innovative schools had open climates while less innovative schools had closed climates.

### Hypothesis Number 2 - Teacher and Administrator Climate Perception in the Two Categories of Innovation

It is interesting to note that the hypothesis regarding the non-innovative school was accepted. Both teachers and administrators see the climate as closed. This, incidentally, may be due to the notion that some people correctly perceive and find comfort in the closed climate.

In the innovative school, however, there was a significant difference in perception by teachers and administrators. Even though both viewed the innovative schools as open, the administrator viewed the school as more open than did the teachers.

### Hypothesis Number 3 - Related Variables and the Two Innovative Categories

Null hypothesis number 3 dealing with the variables of expenditure per child, age of professional staff, years of service in a school and size of professional staff was rejected. It can be concluded, therefore, that when compared with less innovative schools, highly innovative schools spent more per child, had younger staff, had staff remain a fewer number of years and were larger schools.

## Summary

On the basis of this study and supported by others, we concluded that organizational climate of schools in terms of openness and closedness is an important condition for change. On the assumption that innovative schools continuously assess goals and bring about changes to achieve goals, one can make a logical connection between our findings and Halpin's idea that the open climate describes an energetic, lively organization which is moving toward its goals, while the closed climate describes an organization which is not moving and is characterized by a high degree of apathy on the part of all members of the organization.

One cannot, however, determine whether high expenditures, younger staff, larger size of staff and short staff tenure are cause or effect in the open climate situation. They do, nevertheless, exist concurrently with the open climate and innovative school.

Finally, we must add that a large burden of the climate for change rests with the school principal, who, as a single individual has major effect on school climate. He alone is a chief agent in the openness or closedness of the organization. Of the eight dimensions measured by the O.C.D.Q., four are perceptions about the principal's specific behavior and four are teacher behaviors which are largely dependent upon the principal's behavior. It would seem, then, that principal selection, and principal training as well as granting of authority and responsibility for the structural elements of a school to the principal are basic to the development of a change climate.



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